

## Anti-*E. coli* LT toxin antibody, rabbit antiserum

64-020 100 µl

Heat labile enterotoxin (LT) is produced by Enterotoxigenic *E. coli* and is similar to cholera toxin (CT). The identity of the amino acid sequences of LT and CT is about 80% and both toxins consist of one subunit A and five subunit B. LT continuously activates adenylate cyclase and elevated level of cAMP inhibits absorption of Na<sup>+</sup> by intestinal villi cells, and stimulates secretion of Cl<sup>-</sup> by villi and crypt cells, thus causing diarrhea. It works as a potent mucosal adjuvant and is considered to be used as adjuvant with vaccines. Subunit A possesses signal peptide of the amino acids 1-18, and the mature form consists of 19-258 amino acids. Subunit B has signal peptide of 1-21, and the mature form consists of 22-124 amino acids.

**Applications:** 1) Western blotting (2,000~10,000 time dilution) (figure 1)

2) Immunoprecipitation Other applications have not been tested.

**Immunogen:** Initial immunization with LT toxoid and booster with LT toxin.

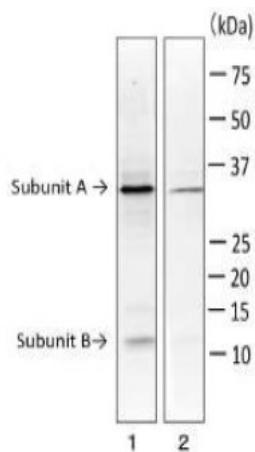
**Reactivity:** LT and cholera toxin.

**Form:** Rabbit antiserum added with 0.09% sodium azide.

**Storage:** Sent at 4°C. Upon arrival, spin-down, aliquot and store at -20°C.

**Data link:** UniProtKB/Swiss-Prot [P06717](#) *E. coli* LT-A

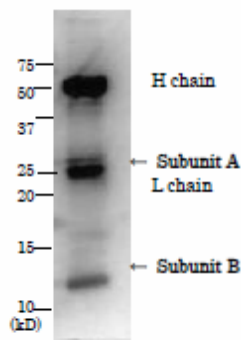
UniProtKB/Swiss-Prot [P32890](#) *E. coli* LT-B



**Fig.1. Western blot of LT toxin in extract of *E. coli* ETEC strain**

1. Culture medium of *E. coli* (ETEC, LT+) blotted with this antibody at 1/4,000 dilution. As second antibody, HRP conjugated goat anti-rabbit IgG was used at 1/20,000 dilution.

2. Culture medium of *E. coli* (ETEC, LT+) blotted with monoclonal antibody to subunit A of LT (BioAcademia 64-022) at 1/1,000 dilution. As second antibody, HRP conjugated goat anti-mouse IgG was used at 1/20,000 dilution.



**Fig. 2 Immunoprecipitation of LT from culture medium of ETEC by using anti-LT antibody.**

The antibody was used at 1/200 dilution for immunoprecipitation and analyzed by western blot

H chain and L chain indicate heavy chain and light chain of IgG, respectively.